

**North Carolina Department of Transportation
Division of Highways
Traffic Engineering and Safety Systems Branch**

**Standard Practices
for
Traffic Signals -Flashing Operations
On State Highway System**

It will be the standard practice for traffic control signals operating on the State Highway System to operate in the steady mode at all times. As a means of reducing delays at signalized intersections, traffic control signals may be programmed to operate in a flashing mode during late night hours.

Guidance

- The late night period generally consists of the hours between Midnight and 5:00 AM, but may be defined differently for individual traffic control signals based on the operational needs at that particular location as determined by an engineering study.
- It will be the standard practice that in order to place a signal into flashing operations, a traffic signal operations study should be conducted by the Division Traffic Engineer, in conjunction with the Regional Traffic Engineer and Municipal Traffic Engineer when applicable.
- A traffic signal may be placed in late night flashing operation for the hours it is determined such operation will not be detrimental to the safety of motorists, bicyclists and pedestrians. In the event the Regional Traffic Engineer and the Division Traffic Engineer cannot mutually agree on the use of flashing operation, the final decision will rest with the State Traffic Engineer or designee.
- When a signal is placed into flashing operations, the Division Traffic Engineer will notify the State Traffic Engineer and Regional Traffic Engineer so it can be periodically monitored. This notification will include the date the signal was placed into flashing operations, and the days of the week and times that the signal is programmed to flash.
- The Traffic Safety Systems Management Unit will scan all signals on the monitoring list at least once every three months. If it appears that safety issues are developing, due to flashing operations, the Regional Traffic Engineer and Division Traffic Engineer will be notified and they will conduct an investigation of the location. If safety issues arise that could be corrected by returning the signal to steady mode operation, the traffic control signal will be reprogrammed for steady mode operation within 30 days. The Division Traffic Engineer will inform the State Traffic Engineer and Regional Traffic Engineer of any changes to the flashing operations for continued monitoring.
- The study to determine if it is suitable for the signal to be placed into flashing operation may be completed prior to signal installation. If the recommendation is to place the signal into flashing operations, the Division Traffic Engineer, in conjunction with the Regional Engineer, may program the traffic signal for late night flash operation at a time after completion of construction.

- As a service to municipalities, the Traffic Safety Systems Management Unit will monitor traffic signals off the State Highway System if the engineer responsible for the maintenance and operation of the traffic signal follows the same procedures as recommended in this practice and submits a request for these signals to be monitored. The Traffic Safety Management Unit will inform the Municipal Traffic Engineer if there are any issues with the locations that TSSMU is monitoring for the respective municipality. The ultimate responsibility to monitor and maintain the safety of these intersections rests with the agency with jurisdictional authority.
- This standard practice is not intended to prohibit flashing operation of traffic signals during special events, inclement weather, signal malfunction, signal removal and installation break-in periods, or other emergency situations where flashing operations may be required as determined by the Division Traffic Engineer and Regional Traffic Engineer.
- The traffic control signal plans have a note that states to not program the signal to flash unless directed by the engineer. For the purpose of this practice and the applicable note, the Division Traffic Engineer is the "engineer" unless the Division Traffic Engineer, Regional Traffic Engineer and Municipal Traffic Engineer (when applicable) do not concur with the decision to place the traffic signal in flash mode or not. In these cases, the State Traffic Engineer is the "engineer".
- See attached example "memorandum of notification" to the State Traffic Engineer for placing a traffic signal into the flashing mode.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 12, 2004

MEMORANDUM

TO: Troy Peoples, P.E.
State Traffic Engineer

Example

FROM: D. T. Engineer
Division Traffic Engineer

SUBJECT: Flashing Operations of Signal 01-001 in Dare County

This memorandum is to inform you that Signal 01-001 at the intersection of US 64 and SR 1003 has been studied and is being programmed for flashing operation. Regional Traffic Engineer, ****Name Here**** concurs with this decision. This traffic control signal was placed in flashing operations during the following days and times effective on January 3, 2004.

| Day | Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|------------|--------|---------|---------|---------|---------|--------|--------|
| Begin Time | 1:30am | 12:00am | 12:00am | 12:00am | 12:00am | 1:00am | 2:00am |
| End time | 7:00am | 5:30am | 5:30am | 5:30am | 5:30am | 5:30am | 7:00am |

If you have any questions concerning this matter please contact me at (919) 555-1212.

DTE

cc: Regional Traffic Engineer